

REMARKS

Favorable reconsideration of this application, as presently amended and in light of the following discussion, is respectfully requested. Applicants first note that since the Amendment filed May 14, 2008 was indicated as non-responsive, the present amendment is made as if the May 14, 2008 Amendment was never entered.

Claims 17-42 are present active in this case, Claims 1-16 canceled and Claims 17-42 added by way of the present amendment.

In the outstanding Office Action dated February 14, 2008, the specification was objected to for minor informalities; Claims 6, 7, and 11-16 were rejected under 35 U.S.C. § 112, second paragraph; Claim 1 was rejected under 35 U.S.C. § 102(b) as being anticipated by Japanese Utility Model 63-121282; Claim 2 was rejected under 35 U.S.C. § 103(a) as being unpatentable over the '282 Utility Model; Claims 3, 5-8, and 10 were rejected under 35 U.S.C. § 103(a) as being unpatentable over the '282 Utility Model in view of U.S. Patent No. 5,896,916 to Baechner et al.; Claim 4 was rejected under 35 U.S.C. § 103(a) as being unpatentable over the '282 Utility Model in view of U.S. Patent No. 6,401,804 to Shimoya et al.; Claims 9 and 11 were rejected under 35 U.S.C. § 103(a) as being unpatentable over the '282 Utility Model in view of Baechner and further in view of Shimoya et al.; and Claims 12-13 were rejected under 35 U.S.C. § 103(a) as being unpatentable over the '282 Utility Model in view of Baechner and Shimoya, and further in view of U.S. Patent No. 4,201,263 to Anderson.

In the outstanding Notice of Non-Responsive Amendment, the Office required Applicant to present product claims as in Group I of the restriction requirement in this case.

First, Applicants wish to thank Examiner Roseti and Supervisory Patent Examiner (SPE) Tyler for the phone discussions in regard to this case. During the discussions,

Applicants explained that the Notice of Non-Compliant Amendment and Restriction Requirement of the July 22, 2008 Office Action are improper because a new Restriction Requirement restricting claims 17-36 from claims 1-14 should be issued such that Applicants are given an opportunity to traverse. The Examiners took the position that the July 22, 2008 Office Action is either proper or includes harmless error, and thus should be maintained.

With regard to the objection to the specification, Applicants have amended the specification to address the informality noted in the outstanding Office Action. Therefore, the objection to the specification is overcome.

With regard to the rejection under 35 U.S.C. § 112, second paragraph, Claims 6, 7, and 11-16 have been canceled, and therefore the rejection is now moot.

Turning now to the merits, in order to expedite issuance of a patent in this case, Applicants have added new Claims 17-42 which clarify the patentable features of the present invention over the cited references. Specifically, Applicants' Claim 17 recites,

... a pressure member provided between the opposing upright walls of the side plate and having a length greater than a distance between the opposing projections such that the pressure member is in contact with each of the projections;
a fastening member arranged to bind the pressure member, side plate, heat exchange tubes and corrugated fins together at a location between one of said projections and a respective header adjacent thereto...

An example heat exchanger covered by Claim 17 is shown in Figures 4 and 5 of Applicants' specification as originally filed. As seen in these figures, a corrugated fin 6 is provided between a side plate 5 and an end tube of the refrigerant tubes 11. The side plate 5 includes projections 13 and 14, and a pressure member 20 is placed in contact with the projections, as best seen in Figure 5. The fastening members 21 are bound around the pressure member 20, side plate 5, corrugated fin 6 and refrigerant tube 11. As a consequence, as shown in Figure 5, the side plate 5 is deflected at end portions thereof. As described in

Applicants' specification, this deflection of the side plate provides a strong force for holding the corrugated fin 6 interposed between the side plate 5 and the refrigerant tube 11.¹

Therefore, unlike the conventional heat exchangers described in the background section of Applicants' specification, the heat exchanger of the claimed invention provides a strong holding force of the corrugated fin between the side plate 5 and end refrigerant tube 11 such that the corrugated fin does not slip out in between these two objects.

In contrast, the '282 Utility Model discloses a heat exchanger having a side plate 19, exchange tubes 5 and corrugated fins 3, which are bound with a wire 20 at a portion of the projection 21 of the side plate 19 (reinforcing member). However, the '282 Utility Model does not include a pressure member for providing a force to the projection 21, and thus also does not describe a fastening member for binding the pressure member in the heat exchanger assembly. That is, the '282 Utility Model does not disclose the features of Claim 17 quoted above. Therefore, the '282 Utility Model cannot provide the increased holding force of the corrugated fins described in Applicants' specification.

With regard to new independent Claim 32, this claim recites,

...the opposing projections are configured to prevent opposite end portions of the corrugated fins from slipping off from between the side plate and the end heat exchange tube adjacent thereto without deforming the corrugated fins plastically when a pressure member is provided in contact with each of the projections and a fastening member is arranged to bind the pressure member, side plate, heat exchange tubes and corrugated fins together at a location between one of said projections and a respective header adjacent thereto...

These features are supported by Applicants' original Specification at least at paragraph [0063], and therefore, new Claim 32 does not raise an issue of new matter. Further, new Claim 42 recites similar features in means plus function format. In contrast to Claims 32 and

¹ See US 2006/0272801 (hereafter "Applicants' specification") at paragraph [0063].

42, the projections 21 of the '282 Utility Model simply support the wire 20 in a gradual bend. There is no discussion in the '282 Utility Model of a pressure member or fastening member, and thus this reference does not teach or suggest above-noted features of Claims 32 and 42. Therefore, Claims 32 and 42 also patentably define over the '282 Utility Model.

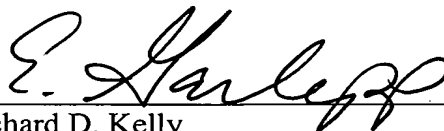
The secondary references to Baechner et al., Shimoya et al., and Anderson are cited for teachings of features within the dependent claims, and do not correct the deficiencies of the '282 Utility Model. In this regard, the dome 20 of Baechner does not provide the projections as now recited in Claims 17, 32 and 42. Therefore, Claims 17, 32 and 42 patentably define over the cited references.

As independent Claims 17, 32 and 42 patentably define over the cited references, Claims 18-31 and 33-42, which depend from Claims 17 or 32, also patentably define over the cited references. Nevertheless, Applicants note that the dependent claims provide an additional basis for patentability over the cited references. For example, several dependent claims recite the height of a projection of a side plate. The cited reference to Shimoya merely describes that the projection rib 14 of plates 12a, 12b and 12c has a height of up to 2mm, but does not disclose the height of a projection of a side plate. This provides an additional basis for patentability of claims including this feature.

Consequently, in view of the present amendment, no further issues are believed to be outstanding in the present application and the present application is believed to be in condition for formal allowance. An early and favorable action is therefore respectfully requested.

Respectfully submitted,

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